

FirstNet Testbeds (Interactive Map)

Emergency Management Magazine

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April 18, 2014



View the status of each of the eight potential FirstNet testbeds in the map above. (Data on each site is also at [the end of this story](#).)

Simply stated, the mission of the First Responder Network Authority (FirstNet) is to create a single interoperable platform for emergency and daily public safety communications. The network is expected to cost upwards of \$7 billion.

Building such a network has never been attempted,

and the project raises a number of technical and operational questions. That's where the FirstNet testbeds come into play. FirstNet has approved spectrum lease agreements with four public safety communications projects to serve as proving grounds for the new network. Negotiations also are underway with a fifth project.

The testbed projects were drawn from a list of eight public safety communications projects that were previously awarded federal grants to develop LTE networks. These projects received a total of about \$400 million through the federal Broadband Technology Opportunities Program (BTOP) or similar programs. Those jurisdictions were:

1. Adams County, Colo.
2. Charlotte, N.C.
3. Los Angeles Regional Interoperability Communications Systems (LA-RICS) authority
4. the state of Mississippi
5. Motorola Solutions for Bay Area Regional Interoperable Systems Authority (BayRICS)
6. the state of New Jersey
7. the state of New Mexico
8. the state of Texas (for its Harris County network)

When FirstNet was created in 2012, work on seven of the projects was halted until FirstNet could review them and authorize their completion. (The Harris County network already was operational.) FirstNet negotiated with all eight projects, but it failed to reach authorization agreements with three of them, as Bill Schrier, senior policy adviser to the Washington state CIO, explained in a [recent column](#).

The map above describes the original eight projects and their current status relative to FirstNet.

Spectrum Lease Agreement Details

The spectrum lease agreement for **Adams County, Colo.**, was [reinstated on Dec. 17, 2013](#) | In December 2013, then-FirstNet General Manager Bill D'Agostino said the Adams County project -- the Adams County Communication Center (ADCOM911), a non-profit Police and Fire/EMS Dispatch Center -- will have 18 to 20 sites that will be used by 2,000 first responders in the county's 1,200 square miles and the Denver airport service area. This project will serve as a "real-world testbed" that will be used to address issues about coverage, network speeds, core interoperability and end-user devices. It also is expected to provide "high-level demonstrations" of public-safety functionality.

FIRSTNET LEASE STATUS: APPROVED

The spectrum lease agreement for the state of **New Jersey** was [reinstated on Dec. 17, 2013](#) | New Jersey will focus on procuring deployable assets -- 37 cell sites on wheels. The state will use these mobile cell sites to expand network coverage in the state and help inform FirstNet's deployable strategy.

FIRSTNET LEASE STATUS: APPROVED

The spectrum lease agreement for the **Los Angeles Regional Interoperable Communications System Authority** (LA-RICS) was reinstated on June 27, 2013. | LA-RICS is a modern, wireless voice and data communications system that will support 34,000 first responders and protect the region's 10 million residents and 26 million annual visitors, according to the project's website. It provides day-to-day radio

communications service for individual public safety agencies, enables interoperability among member agencies and mutual aid providers, and supports communication with regional, state and federal agencies in the event of a natural or man-made disaster. Key information FirstNet intends to learn from this project includes how best to utilize secondary responders in the deployment and operation of its network, and how to prioritize access to the network depending on the nature of the incident.

FIRSTNET LEASE STATUS: APPROVED

The spectrum lease agreement for the state of **New Mexico** was reinstated on Aug. 13, 2013. | New Mexico's pilot project is along the Southwest border -- it will address issues arising in connection with sharing a single Evolved Packet Core (the core network of the Long Term Evolution [LTE] system) among multiple states, including governance, authentication and technical issues, CIO Darryl Ackley said in a [written testimony in November 2013](#)

. The key information FirstNet intends to learn from the project includes use of a network core located remotely, spectrum management and network use issues along the U.S.-Mexico border, and shared use of a state network with a large number of federal users.

FIRSTNET LEASE STATUS: APPROVED

The spectrum lease agreement for **Charlotte, N.C.**, was not reinstated | Charlotte's LTE project had been in the works for years when it applied to be a FirstNet testbed. At the time its original lease was suspended in May 2012, the city was ready to deploy a 39 cell site LTE radio access network, among other technologies. Ultimately, when city officials were planning the network several years ago, they valued its reliability to be worth a premium of \$5-\$10 per month per user over the \$45-\$50 per month rate for unlimited data charged by commercial carriers. The Charlotte network was "designed to survive the roughest of conditions, with priority and preemption promised to public safety."

FIRSTNET LEASE STATUS: NOT APPROVED

The spectrum lease agreement for the **Bay Area Regional Interoperable Systems Authority** (BayRICS)/Motorola Solutions Inc. was not reinstated | BayRICS is working to build a regional data communications network that would put smart phone technology in the hands of police, fire and other public safety agencies, according to its [website](#)

. It would enable first responders to share text, pictures, real-time video and other mobile apps designed for public safety. As a separate network dedicated to public safety, BayRICS would be more secure and less prone to failure during a disaster than today's commercial networks.

FIRSTNET LEASE STATUS: NOT APPROVED

Discussions between FirstNet and the state of **Texas** over a spectrum lease agreement for Harris County are ongoing | In March 2014, the FirstNet board voted to extend negotiations with Harris County, Texas, which is operating an LTE-based public-safety network over FirstNet spectrum under special temporary authority from the FCC. For nearly a year, the county and FirstNet have been trying to finalize details of a long-term spectrum lease that would allow the county to continue accessing FirstNet's 20 MHz block of 700 MHz spectrum. The negotiation period now expires on July 23, 2014.

FIRSTNET LEASE STATUS: PENDING

The spectrum lease agreement for the **Executive Office of the State of Mississippi** was not reinstated | The Mississippi Education, Safety and Health Network (MESHNet) project aims to deploy a 700 MHz interoperable public safety wireless broadband network to every public safety agency in the state. The project will use 134 towers with the state's 700 MHz public safety Land Mobile Radio system, and expects to provide an average of 1 Mbps to user equipment in public safety vehicles moving at speeds up to 55 mph with 95 percent reliability. The enhanced public safety system aims to provide first responders and law enforcement officials with live streaming video capabilities, situational awareness during critical events, Computer Aided Dispatching, mapping and field reporting capabilities, and immediate database access to information for tactical response to routine and emergency situations,

[according to the NTIA](#)

FIRSTNET LEASE STATUS: NOT APPROVED

Originally published by [Government Technology](#)

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